

## Wetland Health Evaluation Program (WHEP)

In 1997 the Minnesota Pollution Control Agency (MPCA) developed monitoring and assessment protocols for volunteer use in wetlands. The Hennepin County WHEP began in 2002. Today, the Minnesota Wetland Health Evaluation Program (WHEP) continues to use these same methods to train citizens to conduct assessments of wetland health by sampling both the invertebrate and plant communities.

In 2009 seven teams comprised of more than 75 citizen volunteers monitored 32 sites covering every watershed in Hennepin County. Six wetlands were monitored in the Elm Creek watershed – three in Maple Grove, one in Corcoran, and two in Dayton. Results from the six Elm Creek wetlands are found below.

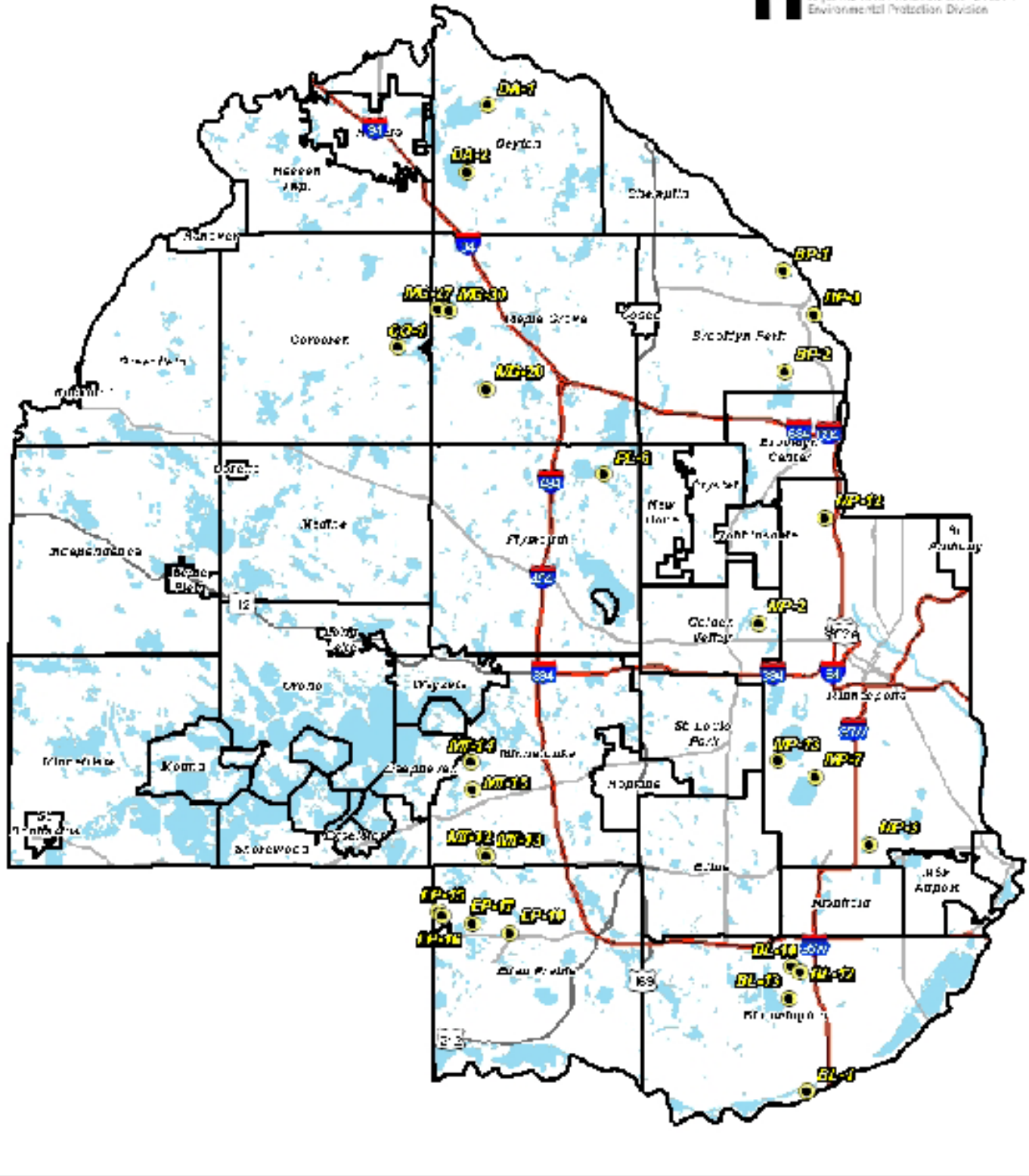
Volunteers identify their samples, score the wetland appropriately, and ultimately assess the condition of the wetland. In order to produce quality data, two quality assurance (QA) steps are built into the program. The first is a “cross-check,” whereby teams sample one wetland from another team. The second is a check performed by the Hennepin County Department of Environmental Services (HCDES) staff. All data sheets and resulting scores are checked for accuracy by the HCDES coordinator.

WHEP uses the Index of Biological Integrity (IBI) to provide a thorough analysis of wetland condition. An IBI score shows a strong response to human disturbance and/or pollution. Six measures are used to make up the IBI for invertebrates, seven for vegetation. Each wetland receives both a macroinvertebrate and vegetation score.

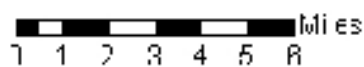
2009 macroinvertebrate scores ranged from a low of 6 (poor) to a high of 30(excellent), with most of the sites in the 15-22 (moderate) range. The vegetation IBI scores ranged from 9 (poor) to 27 (excellent). Results from the Elm Creek wetlands as well as a map of all the Hennepin County WHEP monitoring sites follow.

<b>2009 WHEP Results - Scores</b>						
Metric	CO-1	DA-1	DA-2	MG-27	MG-28	MG-30
	Corcoran City Hall Corcoran	Engstrom Wetland Dayton	French Lake Dayton	Gladstone Maple Grove	Nottingham Maple Grove	91st and Ranier Maple Grove
# Kinds of Leeches	1	3	3	1	1	3
% Corixidae	5	5	3	5	5	5
# Kinds of Odonata	1	3	5	1	1	1
# ETSD	3	3	5	3	3	1
# Kinds of Snails	5	5	3	3	5	1
Total Invertebrate Taxa	5	5	5	3	3	1
<b>Invertebrate Totals (30 max)</b>	<b>20 Moderate</b>	<b>24 Excellent</b>	<b>24 Excellent</b>	<b>16 Moderate</b>	<b>14 Poor</b>	<b>13 Poor</b>
Vascular Genera	1	3	3	3	3	3
Nonvascular Genera	1	3	1	1	1	5
Grasslike Genera	3	3	3	1	3	1
<i>Carex</i> Cover	1	1	1	1	1	5
<i>Utricularia</i> Presence	1	1	1	1	1	5
Aquatic Guild	3	3	1	3	3	5
Persistent Litter	1	1	1	1	3	5
<b>Vegetation Totals (35 max)</b>	<b>11 Poor</b>	<b>15 Poor</b>	<b>11 Poor</b>	<b>11 Poor</b>	<b>15 Poor</b>	<b>24 Moderate</b>

Invertebrates: 6-14 = Poor, 15-22 = Moderate, 23-30 = Excellent | Vegetation: 7-15 = Poor, 16-25 = Moderate, 26-35 = Excellent



**2009 Hennepin County  
 Wetland Health Evaluation Sites**



**Legend**

- 2009 WHEP Monitoring Sites
- Municipal Boundaries
- Public Waters Inventory - DNR

**Source Information:**

Minnesota Department of Natural Resources  
 Hennepin County Tax Property Services Department  
 Hennepin County Emergency Department  
 Hennepin County Department of Transportation

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